

Seminar



Ocean Sized Data

Current, Acoustic, Sediment, Salinity, and Temperature Observations Collected at the Coastal Studies Institute

with contributions from Dr. Lindsay Dubbs and Dr. Reide Corbett

Abstract. Scientists at the Coastal Studies Institute have collected several years of observations from the coastal NC ocean environment. The observations help us address physical, biological, chemical, and geological questions and relationships in the NC coastal ocean, and recently have begun to characterize the available Marine Hydrokinetic Energy (MHK) resources the ocean may provide our state.

We will present details of some of the larger data sets that include several years of currents, waves, passive acoustics, and bathymetric measurements collected off the NC coast, and the impetus for collecting these observations. We welcome collaborative ideas for using computer science techniques to gain additional insights from the measurements, and for advancing our analysis capabilities

Biography. Mike Muglia is the Assistant Director of Science and Research for the NC Ocean Energy Program at the Coastal Studies Institute on the Outer Banks of NC. His scientific interests include understanding variability in position and transport of western boundary currents, the complex confluence of different shelf water masses, shelf and deep ocean exchange processes, and meridional overturning circulation linkages between western boundary currents and deep western boundary currents. Specifics of his ongoing research efforts include:

- *Understanding high frequency variability in the cyclonic shear zone of the Gulf Stream with HF radars*
- *Quantifying the variability in the available hydrokinetic energy resource from the Gulf Stream for the state of NC*
- *Gulf Stream, Mid Atlantic Bight, South Atlantic Bight, Chesapeake Bay Outflow, and Slope Sea water mass dynamics off of NC*

Mike has extensive experience integrating, deploying, maintaining, and recovering many different types of observing systems; analyzing oceanographic observations; instructing students; and managing field projects with faculty, graduate students, and private industry partners. He has BS degrees in marine science, biology, and physics, an MS degree in physics, and a PhD in Marine Science from UNC Chapel Hill. A self-described surf junky, Mike most enjoys working on the ocean.



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Friday November 8, 2019

Time: 2:00 - 2:50pm

Room: Bate 1009

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